



# *Medical Staff Progress Notes*

Volume 6, Number 4  
April, 1994



## *From the President*

Although we have all been inconvenienced for several weeks by the loss of lab results on PHAMIS, I am happy to report that as of April 7, lab results are again available through PHAMIS. The problem arose with questions of confidence and the results being displayed for individual patients. We applaud the labors of our I/S and Laboratory staff who diligently worked many hours to "find the fix" and test and re-stress the system to reestablish our confidence in lab results. It is a mark of our concern and dedication to quality patient care that we endured these hardships until confidence was reestablished.

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Work on various search committees continues. The candidate for Chair of Surgery, Dr. Robert Bower, will be making a visit this week before rendering his decision. The search for Chief Operating Officer continues, and we are gratified by the high quality candidates interested in our institution. We initially interviewed four candidates. Two have been selected to return in the next few weeks for two-day visits. Also, work on the Chief of Clinical Services has begun, with a revision of job description and paper review of interested candidates.

Hopefully, on-site visits and interviews will begin shortly.

Functional planning continues at a scheduled pace. Plans for the areas on the first floor for the new GI Lab and Pre-admission Testing, as well as the ER Fast Track site on the second floor (current location of Medical Staff Services) are proceeding according to schedule. At 17th & Chew, the fourth floor renovation for OB/GYN is underway. We have signed-off on the development of the Ambulatory/Surgical wing, and a visit by state health officials to review the skilled nursing facility plans will take place in the next few weeks.

Congratulations to our training programs in surgery, OB/GYN, and medicine. The results of the match continue to indicate interest among medical students in our programs, and places us competitively with the nations training programs. Our departments and divisions should be proud.

Several of our departments and divisions have held discussions and conferences with our colleagues at Penn State's College of Medicine at The Milton S. Hershey Medical Center. Neurology has begun clinical conferences while orthopedic

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physicians and division chiefs at our institution met with their counterparts at Penn State's College of Medicine. This is an ideal way to share programs and ideas and develop a true working relationship with our medical school affiliation. Congratulations to those who have already started the process, and I encourage all of us to explore avenues for discussion, cooperation, conferences, etc.

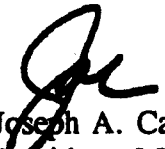
On the managed care front, I am pleased to report that Prudential has contracted with Lehigh Valley Hospital for their global cardiac program. This task was not easy, and much credit needs to be given to the Divisions of Cardiothoracic Surgery and Cardiology, the Department of Surgery, and Administration who worked with Prudential representatives to secure this contract for our institution. Also, in the managed care arena, Jack A. Lenhart, M.D., family practitioner, and John Jaffe, M.D., urologist, have agreed to serve as Medical Directors of our Physician-Hospital Organization. Lawrence P. Levitt, M.D., neurologist, has accepted the position to chair the Care Management Committee. As we all know, we believe that the care management arm is the essential piece in promoting our PHO to employers in our community. We appreciate Jack's, John's, and Larry's acceptance of these positions and are very confident in their abilities to direct the IPA/PHO.

Medical Staff participation in the Operations Improvement Program are highlighted by our Orthopedics Division working with Nursing and

Physical Therapy to decrease length of stay. Impressive data can be obtained for your review from Peter Keblish, Jr., M.D., Chief of the Division of Orthopedics, or any of the orthopedic surgeons. Also, transcription turnaround time is improving, and we are continuing to work to achieve our goal of hard copy on the chart by 7 a.m. the following day. Hard copy lab results have also been available at earlier times in presence of the current PHAMIS problem. Our lab staff has worked hard to provide us with lab data as soon as it is available.

Finally, I wish to thank Dick Fleming for his presentations to the General Medical Staff in March, to the Medical Executive Committee, and to members of our Medical Staff regarding the Cardiothoracic Surgery issues. We all have much concern for the future; however, I believe, that if we as a Medical Staff within our departments and divisions take ownership of patient care by addressing high standards of care for our patients, then we truly become aligned in our ultimate purpose -- quality patient care.

Best Wishes and Happy Spring,

  
Joseph A. Candio, M.D.  
President, Medical Staff

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## ***A Reminder from Lehigh Valley Pharmaceutical Association***

The hospital recently received notice from the Lehigh Valley Pharmaceutical Association about an old problem which seems to be growing again. Prescriptions containing no identification of the prescriber, other than a sometimes illegible signature, are being presented to pharmacists in the area. This often results in delays for the patient as the pharmacist tries to track down the prescriber. The valuable time of physicians and hospital personnel is often wasted in the process. This problem is especially acute with the physicians in the various residency programs at area hospitals.

This situation is easily prevented by having the prescriber's name preprinted on the prescription blank or by the use of a stamp containing the prescriber's name when using a hospital blank. In fact, Pennsylvania Act 1980-86, Section 1. (a) states, "The name of the physician writing a prescription for a drug shall be printed or stamped on the prescription form in addition to his signature."

Please keep this in mind when you are writing prescriptions. Your cooperation is very much appreciated.

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## ***PHAMIS LastWord News***

To date, 30 offices have been connected to the PHAMIS network representing 144 physicians and 37 work stations. Each month, approximately 250 physicians utilize the PHAMIS LastWord system more than 6,500 times to access our expanding clinical data base.

Information Services is now accepting orders for physician office connections on a first-come, first-served basis. Please contact Information Services at 402-1400 to initiate this process.

Following is the schedule of classes for PHAMIS LastWord training for physicians, residents, and allied health personnel:

- Tuesday, May 3 - 1 to 3 p.m.
- Tuesday, May 10 - 6 to 8 a.m.

- Tuesday, May 17 - 5 to 7 p.m.
- Thursday, June 9 - 6 to 8 a.m.
- Wednesday, June 15 - 1 to 3 p.m.
- Tuesday, June 21 - 5 to 7 p.m.
- Thursday, July 7 - 6 to 8 a.m.
- Tuesday, July 12 - 1 to 3 p.m.
- Wednesday, July 20 - 5 to 7 p.m.

All classes will be held at 17th & Chew in the School of Nursing on the first floor.

To register for a class or if you have any questions, please contact Diann Brey in Information Services at 402-1404.

Information Services welcomes your continued feedback and support. Please call 402-1404 for training/ refresher information or 402-8303 for the Help Desk.



## Laboratory Update

### Heparin Resistance Profile

While a patient is receiving heparin, you may occasionally run into a situation where the activated partial thromboplastin time (APTT) does not become as prolonged as would be expected while the patient is receiving intravenous heparin. This may occur for one of four reasons:

- Elevated factor I (Fibrinogen)
- Increased factor VIII
- Decreased antithrombin III level
- Elevated platelet factor IV

When this clinical situation occurs, a plasma heparin determination is warranted to avoid over-heparinization with the resultant increased propensity for hemorrhage to occur.

Whenever the APTT results are lower than expected, a plasma heparin assay may be indicated to provide both a more accurate and safer monitoring of heparin therapy. To prove that the decreased APTT response is due to one of the above mentioned causes, monospecific factor assays can be performed for factors I, VIII, Antithrombin III, and platelet factor IV. In this instance, order a **Heparin Resistance Profile**. The **Heparin Resistance Profile** consists of the following tests:

- Factor I level
- Factor VIII level
- Antithrombin III level
- Platelet factor IV level
- Plasma heparin level

Additional information can be found in the references as listed below:

◆ Glynn MFX. Heparin monitoring and thrombosis. *Am J Clin Pathol* 1979; 71:397-400.

◆ Levine SP, Sorenson RR, Harris MA, Kniefiem LK. The effect of platelet factor 4 on assays of plasma heparin. *Br J Haematol* 1984; 57:585-596.

◆ Marciniak E, Gockerman JP. Heparin-induced decrease in circulating antithrombin III. *Lancet* 1977; 2:581-584.

◆ Holm HA, Kalvenes S, Abildgaard U. Changes in plasma antithrombin during intravenous heparin therapy: Observations in 198 patients with deep venous thrombosis. *Scand J Haemost* 1985; 35:564-569.

◆ Marci CD, Prager D. A review of the clinical indications for the plasma heparin assay. Lippincott 1993; 99:547-550.

If you have any questions regarding this issue, please contact David Prager, M.D., Medical Director, Hematology/Coagulation Laboratory, at 433-6691, or Dolores Benner, Supervisor, Hematology/Coagulation, at 402-8177.

#### URGENT REMINDER

All entries made in the patient's medical record must be dated, timed and signed by the physician.

Compliance of this issue is of the utmost importance.

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## ***Spectrum Apothecary Changes***

On Friday, April 8, Spectrum Apothecary closed its doors for the last time in its location at 1230 S. Cedar Crest Boulevard. On Monday, April 11, a new pharmacy, known as **Health Spectrum Pharmacy Services**, opened its doors in its new location, just off the atrium of the John and Dorothy Morgan Cancer Center.

This move is in response to Health Spectrum's continued growth as a provider of high tech home care services. In addition to everyday prescription services, Health

Spectrum Pharmacy Services specializes in home intravenous therapies and is staffed by pharmacists, nurses, and technicians specializing in these areas.

Hours of operation are Monday, Wednesday, and Thursday - 8:30 a.m. to 5:30 p.m.; Tuesday and Friday - 7:30 a.m. to 5:30 p.m.

For more information about the services offered, contact Health Spectrum Pharmacy Services at 402-8444.

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## ***Infection Control Consultation Services***

The Infection Control Department of Lehigh Valley Hospital has recently developed a series of consultative services to cover a wide variety of needs.

Activities offered through the services include:

- Evaluation of standard infection control practices
- Recommendations for program improvements
- Evaluation or development of exposure control plans
- Provision of training programs

A brochure which provides a complete description of the program is available through the Infection Control Department.

For more information or a copy of the brochure, please contact Andrea Geshan, Director of the Infection Control Department and AIDS Activities Office, at 402-2413.

When you need to talk,  
there's someone to listen!



**Physician Assistance  
Program**

To arrange a confidential  
appointment or for more  
information, call  
(610) 433-8550 or  
1-800-327-8878.

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## ***WalkAmerica for Healthier Babies***

On Sunday, April 24, it's time for **WalkAmerica for Healthier Babies**, the nation's largest annual walk and fundraiser for the March of Dimes. This event raises money so that more babies will be born healthy.

The success of WalkAmerica is important to the March of Dimes and to Lehigh Valley Hospital. Over the past 13 years, our hospital has received almost \$300,000 in grants from the March of Dimes. We've used these dollars to purchase equipment and provide community programming.

Lehigh Valley Hospital is getting involved by forming its own team of walkers. As friendly competition is encouraged, challenge one or more of your colleagues to get the most walkers and/or collect the most pledges.

Our walkers will receive a hospital T-shirt and compete for individual and team prizes:

- The person raising the most pledges wins two tickets to a 1994 Penn State football game

- The team raising the most pledges wins a gift basket
- The team with the most walkers wins a gift basket
- The youngest actual walker wins a Dorney Park season pass
- The oldest actual walker wins a dining/entertainment book
- Individuals raising \$200 or more in pledges will receive a Lehigh Valley Hospital sports bottle, fanny pack, and towel.

Walk with us through the beautiful Lehigh Parkway, Union Terrace, and Cedar Beach. Together our team will walk seven miles to raise monies that are invested right here in the Lehigh Valley. Join Dr. Sussman and his family, your colleagues and friends on Sunday, April 24. Let's all put our best foot forward for this worthwhile cause.

For more information or to register, contact Gail Pitsko, Lehigh Valley Hospital WalkAmerica Team Captain, in Public Relations, at 402-3001.

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## ***News from Research***

A call for abstracts has been issued by the following organizations:

- The American Heart Association for the 67th Scientific Sessions of the American Heart Association to be held on November 14, 1994 in Dallas, Texas. Submission due date is May 6.

- The International Society for Pharmacoepidemiology for the 10th International Conference on Pharmacoepidemiology to be held in Stockholm, Sweden on August 28, 1994. Submission due date is May 20.

For instructions, forms, and further information, please contact Kathleen Moser in the Research Department at 402-8747.



## ***Clinical Nutrition News***

# **Nutrition Management of the HIV Patient**

by Donna Scott, R.D.

Historically, nutrition has not been considered standard therapy in treatment of patients with HIV. However, nutrition intervention is becoming recognized as a key therapy in combating HIV/AIDS. One of the primary physiological considerations in HIV-infected patients is malnutrition. Malnutrition can exacerbate diminished immune function or independently minimize the quality of life and increase morbidity. Nutritional status can be reflective in the way patients respond to other therapies and medications. Well-nourished patients have a better quality of life and increased longevity. Early nutrition intervention may delay or prevent malnutrition and muscle wasting. Good nutrition will promote optimal functioning in all of the different systems, including the immune system.

Complications from other physiological changes that occur in HIV/AIDS patients can be circumvented by nutrition intervention. The metabolic rate increases with the disease, therefore, the needs for increased calorie diet will help maintain body weight and preserve lean body mass.

Some complications associated with HIV disease that can be improved/treated with nutrition therapies include lactose and other food intolerances, anorexia, vitamin and mineral deficiencies, gastrointestinal dysfunctions (n/v/d), dysphagia, difficulty with dentition and malabsorption.

Optimal nutrition can help strengthen the body and prevent tissue breakdown. What is meant by optimal/good nutrition for people with HIV/AIDS? A combination of increased carbohydrates, increased protein and moderate fat intake is the key. The foods selected should be nutrient dense to provide the right/correct balance of vitamins and minerals.

A diet that is increased in complex carbohydrates is recommended (CHO's are the body's major source of energy and calories). Small, frequent meals (4 - 6 times/a day) are usually better tolerated and can help meet metabolic stresses.

- A complete multi-vitamin and mineral is recommended/day vs. megadoses of vitamins and minerals to provide sufficient essential nutrients.
- Adequate food intake (30 - 35Kcal/kg) with emphasis on adequate fluid intake.
- Commercially available nutrition supplements are available and recommended when patients are unable to consume adequate Kcals.

If patients continue with poor P.O. intake and have a functioning GI tract, enteral (TF) feeding is recommended. If unable to utilize GI tract, parenteral nutrition is recommended.

For more information or for a full assessment and recommendations, contact Clinical Nutrition Services at 402-8313 or 402-8378.

## ***A Cause for Celebration!***

It's that time of year again -- Macy's is hosting its sixth annual Benefit Shopping Day on Tuesday, April 26, from 10 a.m. to 10 p.m. at Macy's Lehigh Valley. For 12 continuous hours, you can shop amidst extra-special excitement, with refreshments and various forms of entertainment featured on both levels of the store.

In addition to the five discount coupons included with the purchase of your ticket, Macy's Benefit Day Shoppers will be registered to win spectacular prize packages, including:

- Holland Vacation for Two (six days/five nights for two at the Five-Star Barbizon Centre Hotel and roundtrip air travel on KLM Royal Dutch Airlines)
- Bermuda Get-Away for Two (seven days/six nights at the Belmont Hotel, Golf and Country Club, with unlimited free golf on the hotel's 18-hole golf course and complimentary breakfast each morning)
- Thanksgiving in New York (four days/three nights at the Doral Park Avenue Hotel, VIP viewing of the Macy's Thanksgiving Day Parade, and dinner for two at the Time and Again Restaurant)
- \$5,000 Shopping Spree in Fine Jewelry
- \$1,000 Men's Wardrobe
- \$1,000 Women's Wardrobe

### ● Housewares Surprise Package

Tickets are \$5.00 each, the proceeds of which will benefit one of three special programs -- **Friends of Nursing, Lehigh Valley Hospice, and the John and Dorothy Morgan Cancer Center**, under the auspices of the Lehigh Valley Hospital Trust Fund. Tickets may be purchased at the Tree Top Shop (Cedar Crest & I-78) and the Alcove Gift Shop (17th & Chew) or at other off-site locations as follows:

- 1243 S. Cedar Crest - Laurie Gillespie (402-3031)
- 2166 S. 12th Street - Tracy Kuhnsman (402-7441)
- 2024 Lehigh Street - Debbie Strauss (402-1406)

Buy your tickets today to join the fun and support a great cause!

### **MANAGED CARE CONTRACTS**

Lehigh Valley Hospital has agreements to participate with the following managed care organizations/programs:

- Aetna Health Plans
- Capital Blue Cross
- Community Choice
- HMO of NorthEast PA
- Inter-County Health Plan (for Grandview Hospital employees only)
- Keystone Health Plan Central
- Mercy Health Plan
- Metropolitan (M.W. Wood and Union Pacific employees)
- Prudential
- U.S. HealthCare (service/specialty specific - OB/GYN, pediatric, psychiatry)



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## ***News from the Office of Education***

All physicians in Pennsylvania must participate in CME activities sufficient to (a) fulfill the requirements of the American Medical Association Physician's Recognition Award (PRA), or (b) fulfill the requirements of the Pennsylvania Medical Society. These requirements are slightly different, but each requires participation in a minimum of 50 hours of CME each year, of which a minimum of 20 hours must be designated as Category 1.

Category 1 CME must meet strict requirements including:

- addressing a defined need
- having specific objectives determined, based on the need defined

- having teaching methods appropriate to the objectives
- having defined methods of evaluation
- demonstrating a budget sufficient to accomplish the objectives and program
- being free of commercial bias

These standards are set by the Accreditation Council for Continuing Medical Education (ACCME). All organizations giving Category 1 CME credit are reviewed by the ACCME or a society authorized by it. In the Lehigh Valley, the Lehigh Valley Area Health Education Center is accredited by the Pennsylvania Medical Society to approve programs for CME Category 1 credit.

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## ***Pool Trust News***

### **OB/GYN Resident Data Collection Project Expansion**

In May 1993, the Pool Trustees approved \$40,000 toward a project called the National Resident Data Collection Study. This study undertook the development of a system for resident data collection within the Department of OB/GYN, with implications for teaching programs at Lehigh Valley Hospital and nationally.

At their February meeting, the Pool Trustees approved funding in the amount of \$15,000 to expand the OB/GYN Resident Data Collection project in order to refine the existing program and to expand the project to include the Hershey Medical Center's Department of OB/GYN.

### **RAC Protocols Receive Funding**

The Trustees approved the release of funds in the amount of \$46,814 from the Institutional Research fund for the following Research Advisory Committee (RAC) protocols:

- Disease Activity Follow-up in Patients with Inflammatory Bowel Disease; PI - James F. Reed III, Ph.D., \$5,000
- The Effect of Inpatient Comprehensive Geriatric Assessment Intervention on Patient Care Outcomes; PI - Lisa Lacko, R.N., M.S.N., \$32,474
- Health-Related Quality of Life in Adult Community Acquired Pneumonia; PI - Barbara A. Salvadore, M.S., \$4,500
- Technique for Laparoscopic Vertical Handed Gastropasty; PI - Clark Gerhard, M.D., \$4,840

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## ***Publications, Papers and Presentations***

**Robert V. Cummings, M.D.**, Chairperson, Department of Obstetrics and Gynecology, **Larry R. Glazerman, M.D.**, Department of Obstetrics and Gynecology, and **Stephen K. Klasko, M.D.**, Vice Chairperson and OB/GYN Residency Program Director, presented **Re\_iden\_Da\_a Collec\_ion Is Not Just S's and T's** at the 1994 Council on Resident Education of Obstetrics and Gynecology and the Association of Professors of Gynecology and Obstetrics Annual Meeting held in Nashville, Tenn., on March 3.

**Peter A. Keblish, M.D.**, Chief, Division of Orthopedic Surgery, co-authored an exhibit at the American Academy of Orthopaedic Surgeons 61st Annual Meeting held recently in New Orleans, La. The scientific exhibit's primary author was **Ashok Varma, M.D.**, recent Lehigh Valley Hospital resident, with other co-authors **James F. Reed III, Ph.D.**, Director of Research, and **Frederick Buechel, M.D.**, Professor of Orthopaedics at New Jersey Medical Center.

Lehigh Valley Hospital has been part of a multi-center study which was included in the clinical material of the exhibit. The exhibit addressed the important aspects of radiologic assessments of non-cemented total knee implants as they relate to clinical practice.

**Brian W. Little, M.D.**, Director of Education, presented **Commercial Support and Guidance Practice Parameters** at the Pennsylvania Medical Society's annual CME conference, **CME In A Changing Healthcare Environment**, which was held recently in Harrisburg.

**Howard S. Selden, D.D.S.**, endodontist, recently published a paper titled, **Diagnostic Radiographic Findings and Symptom-Free Teeth**. The paper appeared in the February 1994 issue of the **Journal of Endodontics**.

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## ***Upcoming Seminars, Conferences and Meetings***

### **Regional Symposium Series V**

**Update: Management of Diabetes in Children** will be presented on Thursday, April 21, from 1 to 4:30 p.m., in the Auditorium of Lehigh Valley Hospital, Cedar Crest & I-78.

Physicians, family practitioners, nurses, and other health care professionals interested in the management of diabetes in children will benefit from this program.

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At the completion of the program, participants should be able to:

- describe the outcomes associated with tight control of diabetes mellitus in children
- discuss the state-of-the-art prevention, diagnosis, and treatment of renal complications in juvenile onset IDDM.

**Fourteenth Annual Update in Cardiology** will be presented on Thursday, May 5, from 7:45 a.m. to 12:45 p.m., in the Auditorium of Lehigh Valley Hospital, Cedar Crest & I-78.

Physicians and other health care professionals interested in the latest breakthroughs in selected aspects in cardiology will benefit from this program.

At the completion of the program, the participant should be able to:

- identify the usefulness and long term outcome of coronary atherectomy
- identify the usefulness and long term outcome of lasers and stents in coronary disease
- identify the late outcome of coronary bypass surgery
- treat lipid disorders in at-risk patients.

**Third Annual Wilderness Medicine Symposium** will be presented on Saturday, May 14, from 7:15 a.m. to 4:45 p.m., in the Auditorium of Lehigh Valley Hospital, Cedar Crest & I-78.

Physicians, nurses, pre-hospital personnel, and others interested in wilderness medicine will benefit from this program.

At the completion of this program, the participant should be able to:

- describe safety strategies and survival techniques utilized by hunters
- discuss the prevention, signs, symptoms, and treatment of critical incident stress in the wilderness
- describe common medical problems that occur during whitewater activities
- explain techniques for creatively managing the airway
- discuss the appropriate choice of clothing for outdoor activities
- describe the prevention and management of injuries while mountain biking.

**Getting Employees Back to Work: Alternative Temporary Positions** will be presented on Friday, May 20, from 8 a.m. to 3:45 p.m., in the Auditorium of Lehigh Valley Hospital, Cedar Crest & I-78.

Physicians, nurses, administrators, and insurance representatives concerned with Workers' Compensation costs will benefit from this program.

At the completion of the program, participants should be able to:

- identify steps for the development of a three-phase limited duty program
- discuss examples of reasonable accommodations for workers with disabilities in the health care setting
- outline the components and effectiveness of a team approach for managing employees return to work.

For more information regarding these programs, please contact Human Resource Development at 402-4609.

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## **Medical Grand Rounds**

**Ethical Norms for Discontinuing Artificial Nutrition and Hydration** will be presented by Father William Carr, Fairfield University, College of Arts and Sciences, Department of Philosophy, on Tuesday, April 19.

**Hypothyroidism - A New Look at an Old Disease** will be presented by Gilbert Daniels, M.D., Associate Professor of Medicine, Harvard Medical School, and Attending Physician, Massachusetts General Hospital, on Tuesday, April 26.

Medical Grand Rounds are held at noon in the Auditorium of Lehigh Valley Hospital, Cedar Crest & I-78. For more information, contact the Department of Medicine at 402-8200.

## **Psychiatry Grand Rounds**

**Non-Epileptic Seizures** will be presented by Alexander Rae-Grant, M.D., neurologist, on Thursday, April 21, from noon to 1 p.m., in the Auditorium of Lehigh Valley Hospital, 17th & Chew.

As lunch will be provided, pre-registration is requested by calling the Department of Psychiatry at 402-2810.

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## ***News from Health Promotion and Disease Prevention***

The Health Promotion and Disease Prevention Department of Lehigh Valley Hospital will present several free public lectures over the next few months. Sponsored by the Chronic Disease Education Committee of Lehigh Valley Hospital, the lectures include:

**Oh, My Aching Back** will be presented by Thomas D. Meade, M.D., orthopedic surgeon, and Greg Salem, exercise specialist, on Tuesday, April 19, from 7 to 8:30 p.m., in the Auditorium of Lehigh Valley Hospital, Cedar Crest & I-78.

Have you ever motivated yourself to try a new sport or exercise program, only to have your interest quickly dampened because of an injury? With the proper warm-up, cool-down, and exercise technique, many common back injuries, muscle strains, and bone

sprains can be avoided. Learn how to prepare yourself for physical activity, and what to do if an injury does occur.

**Lyme Disease Update** will be presented by David G. Beckwith, Ph.D., Administrator and Clinical Director, Health Network Laboratories, on Tuesday, April 26, from 7 to 8:30 p.m., in the Auditorium of Lehigh Valley Hospital, Cedar Crest & I-78.

With the summer and tick season just around the corner, the incidence of Lyme Disease will dramatically increase. Learn the facts about Lyme Disease and the precautions you can take to reduce your risk. Where the disease is most likely to occur, why immediate treatment is essential, and what to do if you've been bitten by a tick will also be discussed.

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**Be a Winner at Sports and Nutrition** will be presented by Greg Salem, exercise specialist, and Donna Scott, registered dietitian, on Tuesday, May 10, from 7 to 8:30 p.m., in the Auditorium of Lehigh Valley Hospital, Cedar Crest & I-78.

There are many myths regarding exercise and food. Perhaps you have heard that exercising makes you eat more, or that if you eat more protein, you will build more muscle -- these claims are simply not true. Before you buy another "magical" supplement, come and learn the truths about many food fallacies. In addition, different types of exercise and their benefits will be discussed. You too can feel better through exercise and healthy nutrition.

**Lean Star Cooking** will be presented by Duncan Howdan, Associate Professor of Culinary Arts, Northampton County Community College, and Sandra Barillo, registered dietitian, on Thursday, May 19, from 7 to 8:30 p.m., in the Auditorium of Lehigh Valley Hospital, Cedar Crest & I-78.

The Southwestern influence is being felt everywhere -- think about country line dancing, cowboy boots, and now the wonderful Tex-Mex food that is gaining popularity. In this presentation, the basics of low-fat cooking and a demonstration of how to "legalize" yummy Tex-Mex dishes will be covered. Imagine low-fat taco chips and fat-free bean dip, followed by healthy quesadillas and enchiladas.

For more information or to register for any of the above programs, please contact the Health Promotion and Disease Prevention Department at 821-2150.

The Health Promotion and Disease Prevention Department also offers numerous other classes and programs for weight control, stress management, and smoking cessation which may benefit your patients. Some of the upcoming nutrition and weight control programs include:

- **Think Light! Lowfat Living** - This 10-week program is a specially designed lowfat living plan that makes nutritious eating an easy fact of life. Beginning April 20, the program will be held on 10 consecutive Wednesdays from 7 to 8 p.m., in the O.R. Conference Room at Lehigh Valley Hospital, 17th & Chew.

- **R.E.W.A.R.D.S.** - Have you been through a weight loss program and learned the basics of sound nutrition and weight management? Do you want more, but you are not sure what? The R.E.W.A.R.D.S. program is a follow-up support group for "dieting veterans." The class will emphasize practicing stress management, developing social support systems, and will also include cooking demonstrations, and visits from an image consultant. Beginning April 19, the group will meet the third Tuesday of every month from 7 to 8:30 p.m., in Conference Room 6 of Lehigh Valley Hospital, Cedar Crest & I-78.

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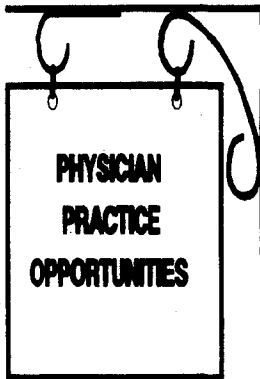
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● **What's in the Cart?: Shopsmart - Heart Health Program** - A registered dietitian will lead group tours highlighting "heart healthy" food choices. This will include the "new" food guide pyramid, convenience food items, label reading, and special occasion food selections. The group tour will be held at the Giant Food Store at Cedar Crest and Tilghman Streets in Allentown on Wednesday, April 20, from 9:30 to 11 a.m.; Tuesday, May 3, from 7 to 8:30 p.m.; and Wednesday, May 11, from 7 to 8:30 p.m.

For more information about the above programs, please contact the Health Promotion and Disease Prevention Department at 821-2150.

**Smoking Cessation Services are available to your patients, both inpatient and outpatient.**

**For more information, contact the Health Promotion and Disease Prevention Department at 821-2152.**



● For Sale or Lease -- Springhouse Professional Center, 1575 Pond Road. Ideal for physician's office. Approximately 1,000 sq. ft.

● For Sales or Lease -- Medical/ Professional three-story office building at 1730 Chew Street, Allentown. Excellent condition with recent renovations. Approximately 6,800 sq. ft. for single or multiple specialty practice. Includes long-term parking lease at Fairgrounds. Potential telephone and dictations systems.

● For Sale -- Office building at Northeast corner of 19th and Turner Streets in Allentown. Upper level - 2,400+ sq. ft., large waiting room, two large consultation rooms, five exam rooms, etc. Lower level - 2,300+ sq. ft. Parking lot for 16 cars.

● For Lease -- Office to sublet on Monday, Tuesday, Thursday, and Friday. 950 sq. ft. Common waiting area. Lakeside Professional Building, Quakertown.

● For Lease -- Monday time slot available in the medical office building on the campus of Gaden Huetten Memorial Hospital in Lehigh.

● For Lease -- Medical-professional office space located on Route 222 in Wescosville. Two 1,000 sq. ft. offices available or combine to form larger suite.

● For Lease -- Slots are currently available for the Brown Bag suite at Kutztown Professional Center. Ideal for satellite location.

● For Lease -- Large, newly remodeled, completely furnished medical office space available for subleasing/time share at Cedar Crest Professional Park. Top of the line telephone system. Transcription and computer system with electronic billing available.

● For Lease -- Medical office space located in Peachtree Office Plaza in Whitehall. One suite with 1,500 sq. ft. (unfinished - allowance available), and one 1,000 sq. ft. finished suite.

● For Lease -- Specialty practice time-share space available in a comprehensive health care facility. Riverside Professional Center, 4019 Wynnewood Drive, Laurys Station. Half- or full-day slots immediately available.

● For Lease -- Professional office space available in an established psychology and psychotherapy practice at 45 North 13th Street, Allentown. Large, warm Victorian building in a relaxed atmosphere. Secretary and billing available and included in some leases. Furnished or unfurnished full offices and sublets available. Utilities included.

For more information or for assistance in finding appropriate office space to meet your needs, contact Joe Pilla, Physician Relations Rep, at 402-9856.

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## **WHO'S NEW**

The Who's New section of *Medical Staff Progress Notes* contains an update of new appointments, address changes, newly approved privileges, etc. Please remember that each department or unit is responsible for updating its directory, rolodexes, and approved privilege rosters.

### **Medical Staff**

#### **Appointment**

**Andrew J. Pestcoe, DO**  
Tomkin Otolaryngology Associates, PC  
2895 Hamilton Blvd.  
Suite 102  
Allentown, PA 18104  
(610) 432-8551  
Department of Surgery  
Division of Otolaryngology  
Provisional Courtesy

#### **Additional Privileges**

**Fred Laufer, MD**  
Department of Family Practice  
Active  
Flexible Sigmoidoscopy

**Hugh S. Gallagher, MD**  
Department of Medicine  
Division of Cardiology  
Active  
Transluminal Extraction Catheter  
Atherectomy (TEC)

**Stephen T. Olex, DO**  
Department of Medicine  
Division of Cardiology  
Active  
Transluminal Extraction Catheter  
Atherectomy (TEC)

**Robert J. Oriel, MD**  
Department of Medicine  
Division of Cardiology  
Active  
Transluminal Extraction Catheter  
Atherectomy (TEC)

#### **Change of Status**

**Robert J. Gary, MD**  
Department of Surgery  
Division of Urology  
From Active to Courtesy

**Frank P. Matrone, DO**  
Department of Family Practice  
From Referring to Provisional  
Courtesy

#### **Unit Director Appointment**

**Yehia Y. Mishriki, MD**  
4S

**John D. Nuschke, MD**  
7B

#### **Division/Section Chief Appointment**

**William B. Dupree, MD**  
Department of Pathology  
Chief, Section of GYN Pathology

**Vincent R. Lucente, MD**  
Department of Obstetrics and  
Gynecology  
Chief, Division of Gynecology  
Chief, Section of Pelvic Reconstructive  
Surgery

**Gregory J. Radio, MD**  
Department of Obstetrics and  
Gynecology  
Chief, Section of Primary OB/GYN

Continued on Page 16

### **Practice Changes**

**Robert B. Kevitch, MD**  
will be joining Plastic Surgeons  
Professional Group, Inc.  
(Effective April 1, 1994)

**Brian Stello, MD**  
• No longer associated with  
Trexlerstown Medical Center  
• Joining Family Practice - Lehigh  
Valley Health Network  
(John W. Reinhart, MD)  
(Effective April 1, 1994)

### **Resignation**

**Stephen J. Barrett, MD**  
Department of Psychiatry  
Consulting

### **Address Changes**

**Robert H. Dixon, MD**  
Emory University  
Department of Pediatrics  
Division of Critical Care/Emergency  
Medicine  
1405 Clifton Road  
Atlanta, GA 30322

**Deidre J. Greene, MD**  
4455 Haverstraw Drive  
Dunwoody, GA 30338

**Robert B. Kevitch, MD**  
Plastic Surgeons Professional Group,  
Inc.  
1230 S. Cedar Crest Blvd., Suite 204  
Allentown, PA 18103  
(610) 432-1953  
(Effective April 1, 1994)

**Robert M. Russo, DO**  
3654 Old Philadelphia Pike  
Bethlehem, PA 18015

**Brian Stello, MD**  
Family Practice - Lehigh Valley Health  
Network  
2200 Hamilton Street  
Suite 308  
Allentown, PA 18104  
(610) 434-7641  
(Effective April 1, 1994)

### **New Fax Number**

**Judith N. Barrett, MD**  
(610) 437-2730

### **Allied Health Professionals**

### **Appointment**

**Pamela Vandenberg, CRNP**  
Physician Extender  
Professional - CRNP  
(Trauma Service - Michael Rhodes, MD)



# HEALTH NETWORK LABORATORIES

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## Reference Ranges, Sensitivity, Specificity and their Application to the Diagnostic Accuracy of MI Profiles

The terms sensitivity and specificity have at least two meanings for a laboratorian namely technical and diagnostic. Technical sensitivity of test deals with the ability of the test to measure very low levels of an analyte and specificity, the ability of the test to measure only the analyte in question to the exclusion of all other compounds. However, the diagnostic sensitivity and specificity defines a laboratory tests' diagnostic accuracy. This is the concept that was referred to in relationship to the new MCKMB measurement in the last newsletter.

Sensitivity indicates the frequency of positive test results in patients with a particular disease, whereas specificity indicates the frequency of negative test results in patients without that disease. The predictive value of a positive test result indicates the frequency of diseased patients in all patients with positive test results. The predictive value of a negative test result indicates the frequency of non-diseased patients in all patients with negative test results. The efficiency of a test indicates the percent of patients (both diseased and non-diseased) correctly classified by the test.

By understanding these definitions, how does the laboratory use them to set the reference range for a test or combination of tests? The limits placed on the reference range have a direct influence on the diagnostic accuracy for that test. In

the MCKMB study 140 patients were measured to include a percentage with MI, a percentage without MI and a percentage with no MI but another medical condition. We know that other medical problems can produce CKMB. Final discharge diagnoses were obtained for each patient. This means that the "gold standard" to evaluate the test is the physicians diagnosis which along with the testing accuracy influences the setting of the reference range and ultimately the diagnostic accuracy. For each of the 140 patients we have a measured MCKMB and total CK, a diagnosis and a calculated relative index (RI) in percent. From this data we can determine true positives, false negatives, true negatives and false positives for any level of MCKMB and RI. From that data a series of calculations were performed to determine sensitivity, specificity, efficiency and predictive value of positive test and negative test at MCKMB values from 2-18 and RI percentages from 0-8. This produced a long table of numbers.

To pick a reference range from these calculations the nature of the disease being diagnosed must be considered along with the following concepts:

- A. Sensitivity of the test may vary with the severity of the disease and should be maximized for serious diseases that are treatable, should not be missed where false positives do not lead to serious

psychological or economic trauma to the patient. Examples: infectious disease, hypertension and hyperlipidemia.

B. Specificity may vary with the type of control group and should be maximized for serious diseases that are not treatable or curable and/or a false positive results in serious psychological or economic trauma to the patient. Example: HIV, Tay Sachs, selected metabolic diseases.

C. Efficiency should be maximized for a treatable but serious disease where false positives and false negatives are equally serious and damaging. Examples: MI, SLE, Diabetes Mellitus.

Applying these concepts we reviewed the table of calculations of sensitivity, specificity and efficiency for this study of 140 patients and chose the reference range for which the efficiency of the test was highest.

	Efficiency	Sensitivity	Specificity
MCKMB = 5 RI% = 4	91	84	94
MCKMB = 5 RI% = 0	80	93	74
Electrophoresis CKMB = 5 RI = 4	88	64	99

An interpretation of the above abbreviated table produces the following:

1. The maximum efficiency occurred at MCKMB of 5 and RI of 4% our current reference range.
2. Dropping the use of the RI decreased the efficiency of the testing from 91 to 80. This is why the RI is one of the parameters used in our report.

3. Electrophoresis is not as accurate a testing methodology but its specificity is greater than the new (mass molecule measurement. Actually this was appreciated by most physicians who observed that negative MIs would always be negative by the electrophoresis method. This is to be expected as the electrophoresis method is not as sensitive and really did not detect CKMB below 4 ng/ml.

Now having outlined the protocol and criteria that the laboratory uses to change a method and/or introduce new tests why did Health Network Laboratories change from electrophoresis to MCKMB? The efficiency only improved 3% with a loss of specificity.

1. Within 2 years all clinical laboratories will use this MCKMB test. In fact this test with its very superior antibody is considered to be the gold standard for CKMB testing.

2. Electrophoresis could not be provided STAT. The protocol for the Chest Pain Clinical Path., the ER and the Trauma Service called for the rapid diagnosis of a MI and STAT testing.
3. The MCKMB test allows for the completion of the 3 specimen serial testing protocol within a 16-24

hour period. This means that negative patients can be moved sooner to a less intensive less costly bed.

4. CKMB is a low molecular weight enzyme which can be released from the cytoplasm of the cell without the cell dying. LD is a high molecular weight enzyme and the cell must die to release it into circulation. The CKMB released into the blood due to these non MI "cardiac insults" is detected by the more analytically sensitive mass molecule measurement. The

MCKMB serial presentation for this non MI "insult" will not be the classic rise and fall of the isoenzyme. Although this increase in MCKMB due to a cardiac "insult" may tend to cloud the tests use for diagnosis of an overt MI, its measurement is diagnostically important. It is thought that identifying a patient that has experienced a non MI cardiac insult is critical information for the long term treatment of the patient. This may be the first documentation that the patient has experienced a cardiac problem which may be a precursor to an overt MI. Two examples of this type of presentation were illustrated in the last newsletter.

John J. Shane, MD  
Chairperson, Pathology

David G. Beckwith, Ph.D.  
Clinical Director,  
Health Network Laboratories

Gerald E. Clement, Ph.D.  
Director,  
Immunology/Chemistry/Toxicology



## *P & T Highlights*

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The following action were  
taken at the March 14, 1994  
Pharmacy and Therapeutics  
Committee Meeting  
James A. Giardina,  
Director of Pharmacy

### ***FORMULARY ADDITION REQUEST***

#### ***FOR NOW***

*Mesalamine (Pentasa, MMD)* is a new controlled release formulation of aminosalicylate, which is slightly different from Asocol, the other Mesalamine formulation. It is indicated for the induction of remission and treatment of patients with mild to moderate active ulcerative colitis. It also appears to have efficacy in the treatment of Crohn's disease. Although mesalamine's mechanism of action is unknown, it is thought to work locally rather than systemically, possibly through modulation of the inflammatory response, especially leukotriene production. Pentasa is formulated in an ethylcellulose-coated, 250mg controlled release capsule, which releases active medication in a pH dependent fashion to provide active drug to both the small & large bowel. Asocol is released in the distal part of the small bowel, when the gut pH is >7). Elimination is thought to occur through the fecal route, with up to 30% excreted in the urine. Mesalamine should be used cautiously in hepatically impaired patients. Mesalamine has caused renal impairment, including nephropathy and acute & chronic interstitial nephritis. Because of this, it should also be used cautiously in renally impaired

patients. Other adverse events include acute intolerance syndromes (which may be difficult to distinguish from disease flare up), headache, rash and GI effects (diarrhea, N/V, abdominal pain, & dyspepsia). Mesalamine is contraindicated in patients with hypersensitivity to its ingredients. It's safety in pregnancy and lactation has not been established and caution is advised. It is not recommended for children. Little information is available on drug interactions, however, because mesalamine's release & absorption is pH dependent, potential drug interactions exist with other medications that alter GI pH. Baseline and periodic renal and liver function monitoring is recommended. The usual dose is one gram four times daily, with approximately 20-30% absorbed. No comparative studies have been performed between Pentasa and Asocol. Because of the theoretical advantage of Pentasa and also because product usage is low, both agents will be evaluated after one year. While Pentasa is generally well tolerated and produces fewer side effects than Sulfasalazine, approximately 10 - 20% of patients intolerant to sulfasalazine will not tolerate Mesalamine.

## FOR SEIZURE CONTROL

**Gabapentin (Neurontin, PD)** is the second new antiepileptic agent approved in 1993. It is a GABA analogue, with an unknown mechanism of action. It does not interact with GABA receptors. Gabapentin is indicated as adjunctive therapy in the treatment of partial seizures with & without secondary generalization in adults with epilepsy. Gabapentin's bioavailability is inversely related to dose, i.e. as the dose increases, the bioavailability decreases. In the usual dose range, the bioavailability is about 60%. Food has no effect on the rate or extent of absorption. It is largely unbound to plasma protein. Gabapentin is not appreciably metabolized and is excreted unchanged in the urine. Gabapentin has an elimination half life of 5 to 7 hours, which is directly related to creatinine clearance. In elderly patients and in patients with impaired renal function, clearance is reduced. Gabapentin is removed from the circulation via hemodialysis. It is contraindicated only in patients who have demonstrated hypersensitivity to it. Gabapentin has not been studied in pregnant or nursing women, and it is recommended only if the potential benefits outweigh the fetal risk. It has been shown to be teratogenic in several animal models. The most common adverse events in combination with other antiepileptic agents are somnolence and ataxia (which appear to be dose related) as well as fatigue and nystagmus. No

drug interactions have been documented, however, there are reports of increased phenytoin levels with Gabapentin dosages of 900mg/day & decreased valproate levels with Gabapentin doses of 300 & 600mg/day. The importance of these observations remain to be determined.

Gabapentin is recommended for adults & children over 12 with a probable effective dose of 900-1800mg/day. It is given three times daily without regard to food. Dose titration is recommended, with 300mg given on day 1 at bedtime, 300mg given twice on day 2, then 300mg given three times on day 3. Dose escalation to 2400mg has been well tolerated in clinical trials, and some patients received 3600mg/day for short periods. The maximum time between doses should not exceed 12 hours. Table 1 depicts dosage recommendations in renal impairment and hemodialyzed patients. Gabapentin plasma levels need not be monitored to optimize therapy. If gabapentin is discontinued and/or alternative anticonvulsant therapy is added, this should be done gradually over at least one week. Gabapentin comes in 100mg, 300mg & 400mg capsules with respective costs of \$0.21, \$0.47 & \$0.52.

Dosage adjustment in patients with compromised renal function or undergoing hemodialysis is recommended as follows:

Table 1 - Gabapentin Dosage in Renal Impairment

Renal Function Creatinine Clearance (ml/min)	Total Daily Dose (mg/day)	Dose Regimen (mg)
>60	1200	400mg TID
30-60	600	300mg BID
15-30	300	300mg QD
<15	150	300mg every other day
Hemodialysis	---	LD of 300-400mg then 200-300mg p dialysis

# FORMULARY DELETIONS

Table 2 - Formulary Deletions

Product	Action	Reason	Formulary Alternative	Comments
Desitin Ointment	R	A	Critic-Aid +	Limit Desitin to pediatrics
Saratoga Ointment	D	A,L	Critic-Aid +	
Torecan Suppos.* (thiethylperazine)	D	A,L	Prochlorperazine	
Tucks Ointment*	D	A,L	Tucks Pads +	

\* No longer available

+ Available from SPD

## 93 FDA NEW DRUG APPROVALS

Table 3 - 1993 FDA New Drug Approvals

	BRAND	GENERIC NAME	COMPANY	DESCRIPTION
NEW MOLECULAR ENTITIES	Aceon	perindopril	Ortho	ACE inhibitor for high blood pressure
	Alomide	iodoxamide	Alcon	ophthalmic mast cell stabilizer to prevent allergic reactions; similar to cromolyn
	Claritin	loratadine	Schering	non-sedating antihistamine
	Cognex	tacrine	Parke-Davis	cholinesterase inhibitor for Alzheimer's disease
	Demadex	torsemide	Boehringer Ingelheim	loop diuretic for high blood pressure or edema; similar to furosemide
	Dermatop	prednicarbate	Hoechst-Roussel	mid-potency steroid cream; an ointment was approved earlier, but never marketed
	Dovonex	calcipotriene	Bristol-Myers Squibb	topical vitamin D <sub>3</sub> derivative for psoriasis
	Effexor	venlafaxine	Wyeth-Ayerst	serotonin norepinephrine reuptake inhibitor for depression
	Felbatol	felbamate	Wallace	anticonvulsant for epilepsy
	Flumadine	rimantadine	Forest Labs	antiviral to prevent or treat influenza A infections; similar to amantadine
	Imagent GI	perflubron	Alliance Pharm.	bowel imaging agent
	Kytril	granisetron	SmithKline Beecham	serotonin antagonist to prevent nausea and vomiting from chemotherapy; similar to Zofran
	Lescol	fluvastatin	Sandoz	cholesterol synthesis inhibitor; similar to lovastatin
	Leustatin	cladribine	Ortho Biotech	chemotherapy for hairy-cell leukemia
	Lipidil	fenofibrate	Fournier	fibrate to lower serum triglycerides; similar to gemfibrozil
	Livostin	levocabastine	Iolab	antihistamine eye drops for seasonal allergic conjunctivitis
	Lovenox	enoxaparin	Rhone-Poulenc Rorer	low molecular weight heparin to prevent blood clots
	Metastron	strontium-89	Amersham	radioactive strontium for painful bone metastases
	Neurontin	gabapentin	Parke-Davis	anticonvulsant for partial seizures in adults
	Neutrexin	trimetrexate glucuronate	US Bioscience	folate antagonist for treating <i>Pneumocystis carinii</i> pneumonia in AIDS patients
SIGNIFICANT NEW DOSAGE FORMS	Omniscan	gadodiamide	Sterling Winthrop	imaging agent for brain and spinal cord
	Orlaam	levomethadyl	BioDevelopment	narcotic for opioid addiction; similar to methadone
	Propulsid	cisapride	Janssen	GI stimulant for nighttime heartburn from GERD
	Risperdal	risperidone	Janssen	antipsychotic for schizophrenia
	Trasylol	aprotinin	Miles	protease inhibitor to reduce blood loss during heart surgery
	Zosyn	piperacillin/tazobactam	Lederle	IV beta-lactam antibiotic with a new beta-lactamase inhibitor
	Betaseron	interferon beta-1b	Chiron/Berlex	beta interferon for multiple sclerosis
	Pulmozyme	DNase	Genentech	inhaled enzyme to thin respiratory mucus for cystic fibrosis
	Tetramune	DTP and HIB vaccine	Lederle	combination of DTP and HIB vaccines for children
	Fentanyl Oralet	oral fentanyl lozenge	Abbott	oral fentanyl lozenge for pre-op medication
	Imdur	isosorbide mononitrate	Key	long-acting oral nitrate to prevent angina
	Monoket	isosorbide mononitrate	Schwarz Pharma	oral nitrate to prevent angina; similar to Imdur
	Ocuflax	ofloxacin ophth soln	Allergan	quinolone antibiotic drops for eye infections
	Penicasa	mesalamine	Marion Merrell Dow	anti-inflammatory for ulcerative colitis
	Testoderm	testosterone patch	Alza	topical testosterone for testosterone deficiency

## NURSING IV GUIDELINE CHANGES

Several changes were made to the Nursing IV Guidelines, which are depicted in Table 4. The concentration for Magnesium Infusions in obstetric patients was also changed from 10g/500ml to 20g/500ml given conversion to the Horizon IV pump, which has built-in free flow protection.

Table 4 - Nursing IV Guideline Additions

MEDS	FLOW RATE FOR IV PUSH	FLOW RATE FOR IV INFUSION	MED/SURG DILUTION OR DRIP    PUSH		NURSES VALIDATED IN CHEMO DILUTION OR DRIP    PUSH		CRITICAL CARE MONITORED BEDS DILUTION OR DRIP    PUSH	
Phenytoin Sodium (Dilantin)	Maximum rate of 50mg/min in adults for doses ≤500mg. No I.V. push for doses >500mg.	Doses >500mg in 100ml NSS and doses ≥ 1500 in 150ml NSS infused through a 0.22 micron filter at a maximum rate of 25mg/min. Do not infuse thru Dextrose containing solutions.	Yes	Yes	Yes	Yes	Yes	Yes
Pamidronate* (Aredia)	N/A	60mg & 90mg doses can be diluted in a minimum of 500ml D5W and infused over 4 hours. Do not dilute in calcium containing solutions (ex. Ringers, Lactated Ringers, etc.)	Yes	No	Yes	No	Yes	No

\* The Medical Literature and Clinical practice support shorter infusion times than the manufacturer recommended 24 hours.



## THE TROUBLE WITH DARVOCET

The Committee discussed potential for patients to consume excessive amounts of Acetaminophen (APAP) from either APAP containing combination analgesics or Darvocet N 100 alone. The Committee is aware that patients have unknowingly been given in excess of 4g/day. Several options that the Committee discussed included whether Darvocet N 100 should be taken off the formulary or removed from Preprinted Orders. Darvocet N 100 has received much focus as it is the highest containing APAP product on Formulary. Table 5 lists the APAP containing products currently on Formulary together with their APAP content. The Committee asked for a random review to determine daily APAP intake prior to a decision.

### BRAND NAME      APAP CONTENT PER TAB/CAP

Darvocet N 100	650mg
Fioricet	325mg
Percocet	325mg
Tylenol with Codeine	300mg
Tylenol	325mg
Tylenol Extra Strength	500mg

## THE FINAL WORD

At the time of standardization on Nizatidine as the preferred oral H2 Blocker, the Pharmacy conducted a random survey of community prices for the most used oral H2RAs. This data was updated to respond to concerns that Nizatidine prices would be dramatically increased in the community to compensate for the special hospital pricing. The data seem to allay the concern.

Table 5 - Selected Oral H2RA Prices in the Community

DRUG	Axid 150mg		Pepcid 20mg		Zantac 150mg	
	5/93	1/94	5/93	1/94	5/93	1/94
PHARMACY A VARIANCE	\$99.17	\$103.13 + 4%	\$98.48	\$102.58 + 4%	\$109.54	\$113.92 + 4%
PHARMACY B VARIANCE	\$90.00	\$100.23 + 11%	\$88.89	\$ 96.99 + 9%	\$92.69	\$ 94.80 + 2%
PHARMACY C VARIANCE	\$97.99	\$ 97.99 0%	\$90.99	\$ 96.99 + 7%	\$91.99	\$ 96.99 + 5%
PHARMACY D VARIANCE	\$80.19	\$ 76.79 - 4%	\$84.88	\$ 85.49 + 0.7%	\$76.39	\$ 79.56 + 4%
PHARMACY E VARIANCE	\$89.95	\$ 93.50 + 4%	\$89.50	\$ 92.95 + 4%	\$98.95	\$102.75 + 4%

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is published monthly to  
inform the Lehigh Valley  
Hospital Medical Staff and  
employees of important issues  
concerning the Medical Staff.  
Articles should be submitted  
to Janet M. Laudenslager,  
Physician Relations, 1243 S.  
Cedar Crest Boulevard,  
Allentown, PA 18103, by the  
first of each month. If you  
have any questions about the  
newsletter, please call Ms.  
Laudenslager at 402-9853.

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